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FOCUSING PLANNING FOR
SUPPLY MANAGEMENT:
OBJECTIVES, POLICIES,
OVERSIGHT AND REVIEW

Supplement to Report CG701R1
Improving Shipboard Supply Management
in the Coast Guard

April 1988

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PREFACE

In our October 1987 report *Improving Shipboard Supply Management in the Coast Guard*, we presented recommendations on supply management responsibilities, operations, and organization aboard ship to resolve many of the supply support problems we found. We also recommended organizational and functional changes in the shoreside support structure that establish a technical channel for centralized supply management and integrated supply, maintenance, and procurement.

However, those recommendations do not address other supply system management issues that need to be resolved if lasting improvements are to occur. In this Supplement we assess Headquarters-level objectives and policies and oversight and review measures, and we present additional recommendations that address those management issues and lead to the permanent resolution of many systemic deficiencies.

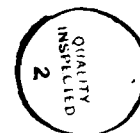
This Supplement is presented in four Parts: Part I is an overview; Part II proposes a response-oriented planning discipline as the basis for a Coast Guard logistics objective and related policies; Part III provides some supply performance indicators that can be used in an oversight and review program to measure supply effectiveness; and Part IV adds objectives and policies recommendations to the recommendations on manpower and training made in our basic report. Each of the latter three Parts has appendices that are integral to the Part and attached to it.

For a complete and thorough understanding of this Supplement, we recommend that the reader first read the basic report.

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PART I

OVERVIEW

OBJECTIVES AND POLICIES

In our review of the *Commandant's Long Range View*,¹ we did not find a planning objective to guide the development of logistics support or the supply system. We believe a fundamental logistics planning objective is necessary to serve as the roadmap for future changes in logistics policy, systems, resources, and organizations and as the baseline against which to measure results. Correspondingly, the planning for evolution of the supply system should reflect the theme of the logistics objective. In Part II of this Supplement, we discuss strategics – a response-oriented planning discipline that injects responsiveness and readiness considerations into resource-distribution decisions – as the basis for a logistics objective theme, and we describe its application to short- as well as long-term changes in the supply system. We also present a logistics objective and four related policies and recommend their inclusion in the next revision of the *Commandant's Long Range View*.

The use of response-oriented planning is not new to the Coast Guard for operational mission decisions, but we found little indication of its use in making decisions on the distribution of supply resources. We believe its use is a significant departure from the traditional Coast Guard approach to planning supply support, and particularly for developing top-level supply policy and in focusing supply system design decisions. We also believe that adopting and applying response-oriented planning and decision-making in the management of the supply function are changes that fit the Coast Guard's management style and can be implemented and sustained. In Part II of the Supplement, we identify seven areas in which response-oriented planning and policy guidance can be applied immediately to improve the supply system's support to the needs of the operating units.

¹COMDTINST M16014.1C, 24 Sep 1986, is a policy document used throughout the Coast Guard as a foundation for the formulation of planning documents. It provides the objectives and policy guidance (courses of action) for achieving the objectives over the next 15 years.

OVERSIGHT AND REVIEW

An important responsibility of the Headquarters (HQ) supply policy office is to exercise oversight and review of the supply system's performance. Using the logistics objective and policies as the roadmap, the supply policy office must measure supply performance to determine the changes needed to meet those objectives and policies. Measurement of current performance is essential to the development of rational policy and to the decisions on allocation of resources.

Oversight and review requires the availability of a reporting system to convey supply performance data to the supply policy office, a procedure for establishing standards representing the desired level of performance, and a staff to analyze and convert the data to information for management decisions on policy development and resource allocation. The problems with using the current structure of reports, systems, and organizations for exercising oversight and review of the supply system are:

- The HQ supply policy office staff has neither sufficient personnel nor experience.
- The finance and accounting system does not provide supply-related financial management information, nor is the supply policy office involved in the program, budget, and review process for Operating Expense funding of supplies and equipment.
- The Inventory Control Points (ICPs) do not have a uniform supply data reporting procedure.
- The operating units do not report supply support performance data.

We believe that the first step in establishing an oversight and review process is to assign a high priority to measuring and evaluating supply effectiveness, i.e., the availability of required materiel and the supply system's performance in providing it to the operators and maintainers. We also believe that measures of supply effectiveness must come from the ICPs and from both shoreside and shipboard supply operations for the HQ policy office to truly evaluate the supply system's performance. ICP-level measures generally provide good information on that part of supply support falling in the ICP's area of responsibility. However, those ICP-level measures — made against a narrowly defined area of responsibility — can make the

system appear better than it really is if there are no unit-level supply performance measurements. In a response-oriented supply system, the supply policy office is concerned with support at the unit level as the primary indicator of the effectiveness of the supply system. Measurements taken there are usually the most powerful indicators of the need for changes. To get unit-level performance information requires that the units report on support from the ICPs, requisitioning from other Government agencies, and supplies purchased locally.

Part III of the Supplement discusses the supply performance indicators required for the HQ supply policy office to measure supply effectiveness. Some supply performance data are available from the ICPs, but the supply policy office also needs to look at supply performance data from both ashore and afloat units to have a view of the total supply support system. In addition to identifying the performance data required for measuring supply effectiveness, we also identify a need for standardizing data production procedures at the ICPs and for software design in the unit-level automated systems. We believe that the Coast Guard currently has the capability to make the procedure and system changes needed for the reporting system. We also believe the supply policy office staff, although currently limited in size and experience, can gain the training and develop the experience needed to analyze and evaluate the data being reported and apply the results to improving the effectiveness of the supply system.

SUPPLY MANPOWER AND TRAINING MANAGEMENT

With the logistics objective and policies as the roadmap for the supply system and supply effectiveness measurements providing feedback on progress, the remaining need is for the skilled manpower to manage and operate the supply support system.

In our earlier report we prepared a special appendix on supply management manpower and training. We discussed personnel-related problems and presented recommendations for changes to the shipboard supply department's staff. In Part IV of this Supplement we expand beyond the immediate shipboard concerns and discuss a long-term program for management of the manpower responsible for the supply support system. We present two primary planning objectives and their related policy guidance and recommend that they be incorporated in the next revision of the *Commandant's Long Range View* to ensure their inclusion in future manpower and

training plans and programs. We believe that those objectives and policies are fully consistent with the human resources policy guidance in the Commandant's principal policy document. Although the acceptance and application of our recommended objectives require some change in traditional beliefs and methods, we believe they are within the Coast Guard's capability to implement and sustain.

CONCLUSION

During our study of Coast Guard supply management, we conducted our research with four purposes in mind:

- To gain understanding of the essential characteristics and qualities of the Coast Guard's management style
- To ensure recognition of the unique aspects of the Coast Guard's management structure
- To ensure identification of persistent systemic problems that require changes in policy, organization, or personnel to resolve
- To constrain recommendations for change to realistic ones that lie within the Coast Guard's capability to implement and sustain.

Our goal is to portray a realistic approach to the evolution of the Coast Guard's supply support system and what it takes to put it into being. It will not happen easily or quickly. We do not believe that in the past the Coast Guard has used a response-oriented management philosophy in making decisions affecting the supply system. We believe the Coast Guard can have high-quality supply support for all its needs without a large overhead structure if decisions affecting supply planning, resources, and organization give proper priority to responding to the operating unit's requirements.

Many past study, audit, and inspection reports have recommended changes in portions of the Coast Guard supply support system to resolve the problems of the moment. Their implementation has brought on mixed results, but the Coast Guard has not made a Service-wide commitment to a fix or to a target system structure. New problems emerge to replace ones that have been resolved. Their emergence gives the supply support system a "chronic illness" nature, and each new problem adds to the belief that the system cannot be cured. The road to recovery entails fundamental changes in the way the Coast Guard makes decisions and plans, manages, and staffs for supply support. In this Supplement we propose objectives

and policies that focus the planning and staffing decisions, and we identify the first measurements of supply performance to indicate to upper management where policies need to be changed to keep the system on the road to improvement. We advocate policy changes and decisions that solve current problems and, while doing so, contribute to a permanent, Service-wide resolution of the chronic problems reported in many prior documents.

We learned early in our study that two fundamental decision keys characterize the Coast Guard's management style: (1) invest in the supply support system only as much as is necessary to cover the current problem, and (2) rely heavily on the Commanding Officer's initiative to overcome shortfalls in supply support when they occur. We recognize the historical circumstances under which both of those characteristics developed, and we believe both can be modified for the betterment of the Coast Guard. As regards the investment decisions:

- Response-oriented supply planning causes resource and system design decisions to tilt toward the operating unit's needs and trades off cost for shorter maintenance downtimes. The cost of planning early and planning in detail is repaid by having needed repair parts and equipment at the point of maintenance when scheduled – ideally, not too soon, but never too late. The resource investment decision is not to go for the "least cost" but to go for the "most responsive support for the cost."
- The supply effectiveness measures help the supply policy office determine whether the system is performing at the level of response expected for the resource investment. A performance standard decision of "95 percent on time fill of all requirements at each level of supply support," requires a corresponding resource investment decision. Regardless of the prescribed performance level, the system requires continuous oversight and strict discipline to ensure that the goal is met. A supply system that is casually or intermittently observed from the policy level is not likely to feel enough pressure to achieve the performance standard nor to generate the payoff expected from the resource investment decision.
- Training personnel in supply management and managing their careers to take advantage of growth in experience promotes constant improvement in the supply system's efficiency. This training is an investment in the people who plan, manage, and operate the supply system. The benefits of good analysis and cost decisions are realized when supply system changes are implemented and executed by trained supply managers.

As for the Commanding Officers, a response-oriented supply system does not interfere with any of their initiatives or decisions. It gives them and their staffs an

opportunity to direct initiatives and focus decision-making on resolving operational mission issues rather than spending time and energy dealing with the daily problems of a nonresponsive supply system. In this support environment the burden of command is the weight of success or failure in mission performance and not the weight of availability or nonavailability of supplies to keep their unit at the right level of readiness.

PART II

OBJECTIVES AND POLICIES: APPLYING STRATEGICS TO COAST GUARD LOGISTICS PLANNING

INTRODUCTION

The Coast Guard's traditional decentralized approach to logistics support is undergoing change. In late 1986, the Coast Guard Chief of Staff assigned the Comptroller responsibility for logistics policy, oversight, and review. In July 1987, a Maintenance and Logistics Command was activated in each of the two Coast Guard Areas to centrally direct logistics support delivery to the Atlantic (LANTAREA) and Pacific (PACAREA) units. In the Commandant's recent decision on restructuring of the HQ a single office retains the responsibility for supply policy, oversight, and review and commodity-related offices have responsibility for maintenance policy formulation and program management. The restructuring decision also sets the stage for reconsidering in 2 to 3 years fully integrating logistics management in a single directorate-style office at HQ.

Those changes highlight the emergence of two precepts: (1) logistics support has a continuous and essential role in maintaining the mission readiness of the Coast Guard's units, and (2) a top-level single manager of the Coast Guard's supply system is necessary for effective supply support delivery to the operating units, and a single HQ-level office for integrated logistics management might better serve the Coast Guard's needs in the future. However, a fundamental issue remains to be resolved — the single, primary objective that focuses planning of the Coast Guard's logistics system. We believe strategics — a planning discipline that blends strategy and logistics, with responsiveness as the interrelating link¹ — provides the optimum theme for that objective.

¹Brown, Kenneth N. *Strategics: The Logistics-Strategy Link*. National Security Essay (Washington, D.C.: National Defense University Press, 1987). p. 2. This essay is the source of the definition we use here for *strategics*, which differs from the dictionary definition.

BACKGROUND

In his national security essay, *Strategics: The Logistics-Strategy Link*, Kenneth N. Brown discusses the relationship between strategy and logistics and observes that the bond between the two is often overlooked by those who write military history. He contends the relationship is so direct and continuous that from it emerges a new planning discipline that he calls "strategics."² The link interrelating strategy and logistics is responsiveness (as opposed to economy or efficiency). Brown states "... strategic success will be proportional to logistics in the very degree to which logistics responds to the need. Through responsiveness, strategy converts to logistics, and logistics converts to strategy. Neither responds without the other being present."³ By introducing response time as a principal planning consideration, the logistics support system develops a structure with responsiveness as the influential theme.

Systems designed around other themes — such as economy or efficiency — tend to build step-by-step, and each process is separately examined and approved in accordance with the theme. As a result, support systems designed around an economy theme lean to the lowest cost processes while those with an efficiency theme favor the most cost-effective processes. Brown acknowledges that economy and efficiency considerations should be recognized and allowed into a response-oriented logistics system but believes they should not dominate it. To do so is to counter the most fundamental precept of the support concept — to focus decisions affecting the structure and processes of the system on the needs of the end item and the customer. To bring the concept into being, Brown makes responsiveness a major planning factor from the earliest statement of mission performance requirements through production and fielding of the equipment and training of operators and maintainers to the provision of follow-on spares and repair parts.⁴

Brown proposes the development of the response-oriented logistics system for support to units in dynamic, multimission, widespread areas of deployment. He feels the dominant concern for logistics support is how to meet mission and customer

²*Ibid.*

³*Op. cit.* p. 10.

⁴*Op. cit.* pp. 16 — 18.

interests that require greater flexibility and involve more uncertainty.⁵ The units with "mission and customer interests" that require a response-oriented logistics system generally have one or more of the following characteristics:

- A light force (individually or collectively)
- Independent operations
- Wide dispersion
- Extreme self-reliance.

Additionally, those units likely (1) have passed selected personnel administration, supply stockage responsibility, and maintenance capability to higher level activities; (2) depend on rapid information processing through good communications lines; and (3) provide comprehensive, noncompartmentalized training for their leaders and their equipment operators and supporters.⁶

In closing his essay, Brown states that the thoughts and processes surrounding strategics, and responsiveness as the link between strategy and logistics, are totally appropriate for land, sea, and air forces. He says it requires "...only imagination and selectivity to find where best to use the concepts that grow out of an appreciation for strategics."⁷

APPLICATION OF STRATEGICS TO COAST GUARD LOGISTICS

Without purposefully setting out to do so, Kenneth Brown has described a concept for planning a logistics system that is nearly custom-made for the Coast Guard. In view of the Coast Guard's programs and organization, history and culture, and the nature of its support and tactical operations, strategics presents the right planning concept for the Coast Guard's logistics system. In comparison with the Army, Navy, or Air Force, the Coast Guard is, in its totality, a light force. Its operating units, including the high endurance cutters, are light force units. They bear the characteristics that categorize light forces, i.e., single units on relatively independent multimission operations, wide dispersion afloat and ashore, and considerable self-reliance. Organizational capability of the units reflects that they

⁵*Op. cit.* p. 27.

⁶*Op. cit.* pp. 33-34.

⁷*Op. cit.* p. 70

have passed varying degrees of responsibility to higher level units, are highly dependent on good lines of communication (electronic as well as transportation) for support, and have many members who are capable of performing in more than one specialty. Although not a perfect match to Kenneth Brown's light force characteristics, the Coast Guard's operating units are such close approximations that applying strategies and the responsiveness theme to planning its logistics support system is appropriate and timely. To do so requires "only imagination" and the adoption of a response-oriented logistics system as the primary logistics planning objective.

Relationship to the Commandant's Long Range View

The *Commandant's Long Range View* (COMDTINST M16014.1C, 24 Sep 1986) provides broad guidance for planning throughout the Coast Guard over the next 15 years. It serves as a basic policy document and as the Commandant's message on the direction the Coast Guard must take in formulating planning documents. The following two key terms are defined in the Instruction:

- *Objectives:* statements of what is to be done
- *Policies:* guidelines indicating courses of action for achieving established objectives.

The Instruction also states that the first and most important step in developing the structure and focus of the organization is to define the objectives.

In our review of the COMDTINST for a logistics planning objective, we found objectives and policies with logistics implications and inferences of logistics support planning requirements throughout the document (we present excerpts from them in Appendix A). The COMDTINST, however, does not directly specify an objective for Coast Guard logistics and provides only a few policies to give direction to short- or long-term planning for the logistics support system.

Logistics Objective

The logistics objective is a statement of what is to be done immediately and over the long term. The immediate action is to fully adopt the concept of a strategy-logistics link. Some HQ managers have applied the response theme to varying degrees. Aviation's logistics resource decisions tilt heavily to responsiveness through inventory investment to maintain flight safety standards and aircraft

availability requirements. Some aspects of electronics logistics support are designed with response time as a decision criteria, and other programs have pockets of response-oriented design and resource distribution.

The logistics support system has a significant influence on the ability to achieve operational objectives, but it will be relegated to secondary-level interest unless it is injected in the planning process early and continually. The Coast Guard needs a single major logistics planning objective that interrelates its operational capability requirements and logistics management to provide the focal point for developing the Coast Guard's logistics system. We believe the concept of strategics, i.e., responsiveness as the interrelating link between strategy and logistics, provides the foundation for the following objective for Coast Guard logistics management:

To adopt the concept of a strategy-logistics link when determining operational capability requirements; and to apply response-oriented logistics planning from initial acquisition through fielding and sustaining to final disposition of Coast Guard materiel, systems, and facilities.

Logistics Policies

Logistics policies provide the more specific guidelines that lead to ultimate longer term achievement of the objective. In this case, the long-term action is to apply response-oriented logistics planning throughout the Coast Guard's programs and to embed it in the full life-cycle process that brings materiel, systems, and facilities into use and to their final disposition. Although the *Commandant's Long Range View* contains a few policies with implications for logistics support, several more policies are needed to ensure a focus on establishing a response-oriented logistics system.

We recommend the following additional policies:

- Integrate in the planning actions of all program and support managers a standard procedure for applying response-oriented logistics planning in the development of new capability requirements
- Apply responsiveness as the system theme in the redesign of existing system organization, processes, and resources
- Establish response-oriented quantitative measures of logistics system performance and customer satisfaction

- Apply new information processing and transmission technology to a multiuser, automated support system integrating essential logistics processes at the operating units.

Those four additional policies provide the courses of action for introducing response-oriented logistics in the Coast Guard. Each policy precipitates additional shorter range goals for particular activities that compose the total logistics support structure. As the logistics objective and policies are promulgated, the HQ Offices and HQ Units should bring their internal objectives, policies, and standards into alignment.

We recommend that the next revision of the *Commandant's Long Range View* include the logistics objective and specific policies to continue the evolution of the Coast Guard's response-oriented logistics system.

Supply Management Manpower and Training Objectives and Policies

Many of the Commandant's observations and related policy guidance address the human needs of the Coast Guard. They include statements on professionalism, leadership, training, and personal efficiency, and all are appropriate for the personnel responsible for the logistics function. Of particular concern in a response-oriented logistics system are the personnel responsible for managing the supply function. Appendix C of the basic report discusses many issues involving supply management manpower and training, and recommends a number of changes in current procedures. We believe a long-term program is necessary. Part IV of this Supplement provides the objectives and policy guidance statements for training and for sustaining a highly qualified and capable team of personnel to manage the supply function of the Coast Guard logistics system.

RESPONSE-ORIENTED LOGISTICS PLANNING

To develop logistics support plans under the responsiveness theme, the requirements developer and the operations planner must give early consideration to the support needs of the end item and the equipment operator. The logistics managers are impelled to understand their customers, and the customers are forced to become active participants in the person-procedure-equipment relationship.⁸ As

⁸*Op. cit.* p. 69.

an integral part of the management process, response-oriented logistics planning is applied to each facet of a capability or an item's life cycle as follows:

- In the earliest stages of specifying new operational capabilities or requirements, logistics support needs and standards are identified, validated, and related to the different levels of readiness at which the item is expected to be maintained in order for it to perform at an acceptable level.
- While hardware specifications or production methods are being developed, reliability and quality standards and the post-fielding availability of spares and repair parts are considered for their impacts on the response time targets controlling the existing support system.
- Training for the equipment operators and equipment maintainers goes beyond their specific primary skills. Training requirements emphasize details that make the operators and the maintainers a more effective component of the people-procedure-equipment system. Personnel are sufficiently trained in the procedures and equipment to know how to accommodate or bypass failures in support systems and maintain an operational performance level equal to the current mission. Operators and maintainers initiate the information used to validate or adjust response-time targets.
- The sustaining system is designed to make any distinction between the wholesale and retail levels of support nearly invisible to the customer. Management of logistics is not compartmented into management of the separate functions of supply, maintenance, transportation, and facilities. A front-looking, forward-support function – *distribution management* – represents the integrated management of essential parts of the separate functions to inject responsiveness into supply-availability, maintenance-capability, materiel-movement, and facility-location decisions. The focus of the sustaining supply support system is to provide required items to the maintenance specialists at the right place of service in response to a justifiable time-driven need.
- The customer service program is expanded beyond the usual scope of answering telephone inquiries, mailing out reference publications, and performing liaison visits. In a response-oriented logistics system, customer service encompasses a full range of customer requirements-satisfying activities beginning with facilitating the order-entry process and ending with comparing actual delivery of materiel or services against the required or programmed delivery date.⁹ It tilts the decision toward responsiveness

⁹Ballou, Ronald H. *Business Logistics Management*. (Englewood, N.J.: Prentice-Hall, Inc., 1985). pp. 52 – 54.

when plans for locating materiel or maintenance service resources are being reviewed and approved.

- Oversight and review begins with the establishment of planning controls and standards in the design of the response-oriented logistics system. Measurements of the quality of support continue through traditional reports on how well the support system says it is performing (reports, for example, on percent of initial fill, dollar value of inventory, maintenance backlog carry-over, and dollar-value of unfunded maintenance), but the foremost concern is for how well the customer's needs are being met. The oversight and review level continually validates preplanned response levels by soliciting customer-initiated reports on responsiveness indicators such as the average time from order placing to materiel receipt, availability of required items from prescribed sources, and programmed maintenance performed on time. By having a small number of customer satisfaction reports, holding them to a reasonable frequency, and using market-sampling techniques, the HQ-level managers can revise upward or downward those policy and resource decisions that affect the level of responsiveness.
- In planning the replacement of obsolete items in a response-oriented logistics system, removal, relocation, and disposition are integrated with the installation and acceptance of the new item. The entire support system is considered, and excess resources are reallocated as a integral part of the plan developed for the new capability. Because the system is response-oriented to support the obsolete item, the particular spares, repair parts, and maintenance services that are in place for it are unlikely to be overlooked or left to be misused or discarded.

While response-oriented logistics planning might seem more suitable for structuring support for a new capability or item, it is an equally important and powerful aid for guiding decisions affecting sustained support. Logistics managers are constantly required to make such decisions as (1) where to position additional spares and how many to reprocur to meet current wear-out experience, (2) what constitutes an economical quantity of unserviceable items to put on a commercial overhaul contract, (3) whether to return an unserviceable item to a central location for repair or to provide central funding for local repair, (4) what is the best way to obtain and distribute a critical repair part with an increasing usage rate, or (5) where to reallocate supply and maintenance personnel to make the greatest impact on improving support delivery.

In making those decisions, the logistics manager must deal with one primary issue — response time. He must answer two questions: how important is response

time, and from his range of choices, which one contributes to improving response time? Having response time as the basic focus of everyday management gives consistency to decision-making at each level of logistics management and puts support to the operating units at the top of the decision list.

Conclusion

Response-oriented logistics planning is a life-cycle and system-wide endeavor. For a new operational capability or platform, it starts with the first description of the requirement. As the analysis proceeds to determine how the organizational structure or support systems are to change, the formulas give greater weight to responsiveness than to cost. When allocating sustaining system resources, a premium is placed on forward support if it is needed to meet the response time. With responsiveness as the common thread, the impact of decisions is more immediately apparent and actions to accommodate those decisions are more easily identified, communicated, and supported.

SHORT-RANGE SUPPLY SYSTEM CHANGES

In the basic report we present a number of recommendations to improve the supply organization and operations at the shipboard level. The supply system has a number of areas that offer opportunities for introducing the responsiveness theme. Changes can be initiated to add to the responsiveness of systems, procedures, and organizations that support shore and afloat units. We recommend the Coast Guard implement the following short-term changes to improve the supply system's response time to the needs of the customer:

- Establish a critical components, equipment, and repair parts identification process and a formal critical item management system for their funding, visibility, positioning, repair, and reprourement.
- Establish a customer-initiated procedure for recommending additions and deletions to the critical item management system.
- Establish a standard multi-commodity supply record system and procedure for nonautomated unit-level supply management.

- Expand the inventory-accounting function of SCAMP¹⁰ to a demand/usage-based stockage-level computation, and develop an automated, real-time capability to post issue, receipt, and order status information.
- Establish an automated procedure to report the local purchase of spares and repair parts that are included in the critical item management system or meet prescribed dollar, quantity, or frequency thresholds.
- Establish a specific supplies (Object Class 26) and equipment (Object Class 31) budget request, distribution, and execution line for reporting from the operating unit to the HQ supply policy office; review expense reports for request and expenditure comparisons, and the impact of fund shortages on supply responsiveness.
- Identify specific shoreside support units responsible for providing customer supply assistance, storing forward-positioned critical spares, holding low-usage/insurance stocks, and maintaining local supply source vendor files and automated Federal Supply Catalog master data files.

Of the various logistics processes and systems, the one providing supply support has the most continuous and influencing effect on the operating units. Supply needs are often difficult to forecast, and when response is not timely, the requirement is often filled from a secondary source — usually through extra effort. The supply support system is the right place to start introducing responsiveness in Coast Guard logistics. Performance is more easily measured and the results are more visible in the form of increased customer satisfaction.

SUMMARY

Response-oriented logistics planning is a powerful approach to disciplining a logistics system to accommodate levels of operating capability established in the earliest stages of describing a new requirement. Response time is a common and easily understood planning factor. The capability to translate response time into decisions affecting organization structure, resources, and information distribution evolves and spreads as its effect is understood. The logistics objective provides the long-term target for policies and goals that bring about the changes to instill responsiveness throughout the design of the Coast Guard's logistics system.

¹⁰The Shipboard Computer-Aided Maintenance Program (SCAMP) is the automated information system for preventive maintenance schedules, budget management, and repair parts inventory

PART II
APPENDIX A
LOGISTICS-RELATED EXCERPTS
FROM
THE COMMANDANT'S LONG RANGE VIEW

INTRODUCTION

The *Commandant's Long Range View* (COMDTINST M16014.1C, 24 Sep 1986) is a policy planning document outlining the objectives, policies, and organizational direction of the Coast Guard for the next 15 years. The document is revised and issued biennially.

The *Commandant's Long Range View* is divided into two major parts:

- Part I, *Overview*, briefly describes the scenario and sets forth the Commandant's direction for addressing it.
- Part II, *Policy Guidance*, discusses specific issues and provides policy for use in developing plans. It is divided into two sections:
 - ▶ Section I, *Leadership/Administration*
 - ▶ Section II, *Coast Guard Objectives*.

EXCERPTS FROM PART I

The *Overview* presents the setting in which the Coast Guard will be operating during the next 15 years. The changes in the operational environment have implications for logistics and particularly the requirements for supply and maintenance support. The operating environment issues affecting supply and maintenance support requirements are:

- The need to control spending will force the Coast Guard to continually review its operations to improve productivity and assure operational efficiency.
- Accomplishing objectives within the tighter budgetary climate will require ingenuity and resourcefulness. There will be a need to prioritize activities

and review performance vigorously to ensure that the Coast Guard accomplishes key missions as effectively as possible.

EXCERPTS FROM PART II, SECTION I

Section I, *Leadership/Administration*, addresses 11 separate areas of support:

- Human resources
- Member and dependent support
- Professionalism
- Command and managerial skills
- Financial management and fiscal integrity
- User fees and defederalization
- Capital resources
- Research and development
- Information resources management
- Information security
- Coast Guard internal organization.

Most areas of *Leadership/Administration* have direct reference to logistics support requirements in both the Commandant's observation and the policy guidance related to the observation. Following are excerpts from areas in Section I that are related to logistics in general or specifically to supply and maintenance support.

Human Resources

Commandant's Observation

We have placed increased emphasis on training our people to increase efficiency. Our training programs will continue to emphasize increased productivity as a way of assuring that our resource requests are supportable in the tightening budgetary climate.

Related Policy Guidance

We will constantly tailor our recruitment (and) promotion . . . programs to assure a work force that meets the needs of the Coast Guard.

We will continue to foster the development of strong leadership in our personnel.

Professionalism

Commandant's Observations

Duty in cutters provides the necessary first-tour seagoing experience for personnel in subsequent shoreside assignments.

There will be a continuing need to focus on the career development of personnel. Innovative approaches to rating management, training, and sea/shore rotational assignments will be necessary to assure professional development.

Related Policy Guidance

We will vigorously pursue new initiatives to enhance officer and enlisted professionalism in the Coast Guard.

We will emphasize training that provides job-specific skills.

Command and Managerial Skills

Commandant's Observations

The constraints on federal expenditures will require increased productivity as well as enhanced management skills to accomplish our goals within stable or reduced Coast Guard budgets.

Ensure that decisions are made by the lowest competent level and are not subjected to unnecessary review levels. Our efforts will focus on reducing our personnel-intensive functions through technological improvements, particularly through increased communications and Automated Data Processing (ADP) applications.

Related Policy Guidance

We will adjust the focus of our personnel system as necessary to develop and maintain needed expertise in command and leadership skills.

Financial Management and Fiscal Integrity

Commandant's Observations

The emphasis will be on operational and administrative efficiencies.

Equally important will be our ability to analyze our activity from a financial perspective. These capabilities are directly contingent upon two factors: (1) a cadre of trained financial managers and (2) the ADP systems required for fast retrieval and analysis of data.

Related Policy Guidance

We will maintain/improve training for our line financial managers and analysts.

We will improve supply efficiency in the supply, procurement, and financial management areas, including application of developing computer technology.

Capital Resources

Commandant's Observation

The major capital investment programs... can be expected to pay valuable dividends in the form of increased mission capabilities, reduced maintenance workload, and improved working and living conditions. Future capital investments must take full advantage of technological advances to improve productivity in mission performance.

Related Policy Guidance

We will improve our planning and coordination for major systems acquisitions.

We will vigorously pursue capital investments that will improve our productivity and operational capabilities.

We will invest in support systems only when such investment will result in increased productivity or necessary improvement in the quality of life for our people. Quality of life includes the ability to perform assigned tasks as efficiently and safely as possible.

We will incorporate Integrated Logistics Support (ILS) concepts into our planning for systems acquisitions.

We will seek commonality with DoD hardware where appropriate.

Information Resource Management

Commandant's Observations

Effective use of information technology has the potential for real productivity and performance gains in the Coast Guard.

The Coast Guard must have a comprehensive plan to move from manually prepared... reports toward a data base system for information management and decision support.

Related Policy Guidance

We will follow a complementary strategy for the development of automated systems which (1) are user friendly, manageable and productive, (2) tie various data bases, and (3) review to support policy making and operational decisions. These systems will emphasize integrated planning, shared facilities, standard equipment, public access data networks, high response rates and user chargeback/responsibility.

We will prepare and maintain a comprehensive plan for implementation of data-base-oriented teleprocessing for information management.

Coast Guard Internal Organization

Commandant's Observation

Reorganize as necessary to meet changes in technology, to improve productivity, and to respond to budget cuts. Any reorganization will be conducted in line with our general organizational policies of maintaining unity of command.

organizational integrity, appropriate span of control, and of delegating decision-making authority as close as possible to the point at which action is taken.

Related Policy Guidance

We will continually review our organization for streamlining, consolidation, and the like, to gain management efficiency and effectiveness.

EXCERPTS FROM PART II, SECTION II

Section II, *Coast Guard Objectives*, presents seven objectives oriented to operations. Although none specifically address logistics, several imply the need for a high state of materiel readiness which is a direct result of supply and maintenance support. The objectives containing logistics implications and the related policy guidance are as follows.

Objective A

To minimize loss of life, personal injury, and property damage on, over and under the high seas and waters subject to U.S. jurisdiction.

Policy Guidance Related to Objective A

Continue to provide active support for the International Ice Patrol.

Continue to respond to all calls for help from mariners.

Objective B

To facilitate transportation with particular emphasis on waterborne activity in support of national economic, scientific, defense, and social needs.

Policy Guidance Related to Objective B

Maintain domestic icebreaking capability.

Continue to operate and maintain Aids To Navigation (ATON) systems in most critical waterways.

Objective C

To maintain an effective, ready armed force prepared for and immediately responsive to specific tasks in time of war or emergency.

Policy Guidance Related to Objective C

Maintain an active duty force that is trained and equipped to effectively execute any of the defense contingency plans.

The Coast Guard will maintain a strong defense readiness posture and ensure that national defense planning appropriately includes unique Coast Guard capabilities.

We will maintain a family of contingency plans in fully updated condition at all times. Keeping plans current and exercising to test them will be given high priority.

Objective E

To enforce federal laws and international agreements on and under waters subject to the jurisdiction of the U.S. and on the high seas where authorized.

Policy Guidance Related to Objective E

Maintain a strong presence on and over the sea to meet all operational law enforcement needs of the nation.

Objective G

To cooperate with other governmental agencies and entities (federal, state, and local) to assure efficient utilization of public resources, and to carry out activities in the international sphere where appropriate in furthering national policy.

Policy Guidance Related to Objective G

Continue to operate the polar icebreakers of the United States, providing support to National Science Foundation (NSF), DoD, and other users, as well as other Coast Guard missions.

Of the polar icebreakers currently in the fleet, two have been in operation for more than 40 years and one for more than 30. Two will be replaced over the next decade.

CONCLUSION

The *Commandant's Long Range View* presents a number of implications for logistics system planning and several policy guidance statements appropriate for developing logistics manpower and training plans. It does not present a specific objective for focusing Coast Guard-wide logistics planning or policies to guide program and support managers in planning their logistics support requirements.

PART III

OVERSIGHT AND REVIEW: ANALYZING SUPPLY EFFECTIVENESS

INTRODUCTION

Although the Commandant's decision on HQ restructuring caused the realignment of all functions in the Office of the Comptroller (G-F), the responsibility for supply policy remains intact in the newly established Logistics Management Division (ELM) in the Office of Engineering (C-E). To facilitate executing this policy responsibility, ELM should have an oversight and review methodology that supports its evaluation of the supply system's effectiveness. Supply effectiveness is a measure of the supply system's ability to provide the customers what they need in a timely manner. Although a number of means exist to evaluate the system's effectiveness, our focus is on the two most basic measurements of supply effectiveness: materiel availability and materiel response time. All other indicators support or represent segments of these two indices. We address each of these measurements at both the ICP and the unit level. This part of the Supplement first discusses the current limitations of the Coast Guard supply system's oversight and review process. We then address materiel availability and materiel response time, and present our conclusions and a summary of our recommendations.

CURRENT LIMITATIONS

Three basic conditions in the current Coast Guard supply system place limitations on the supply policy office's oversight and review process:

- The universe of Coast Guard supply
- The incompatibility of ICP automated systems
- The lack of Coast Guard management information systems.

The Universe of Coast Guard Supply

Currently no precise figures are available to indicate where the Coast Guard procures its supply support in terms of dollars or volume of requisitions. the usual

measures of supply support. From available information, however, we can draw some inferences about the sources of Coast Guard supply support. Data compiled from several District's accounting system records indicate that in terms of dollars, approximately 80 percent of the Object Classes 26 (supplies and materiel) and 31 (equipment) items are purchased locally. The remaining 20 percent of the dollars are spent for Federal Supply System items from other Government Agencies (OGAs) and the Coast Guard ICPs. Although there is no further breakout of those dollars available in the reporting system at this time, transaction files from the Defense Automated Addressing System (DAAS) show that, by requisition volume, 91 percent of the Coast Guard's requisitions are serviced by OGA ICPs. The remaining 9 percent of supply support (based on requisition volume) is provided by Coast Guard ICPs.¹ While these figures are not conclusive, they do provide some understanding as to the sources of Coast Guard supply support.

Because of the segmentation of the Coast Guard's universe of supply, the levels of influence that the Headquarters can exert by measuring supply effectiveness differ. It can influence local purchases from the standpoint of dollar expenditures but not in terms of materiel availability. However, since the majority of Coast Guard requisitions are serviced by OGA sources, HQ management influence is limited to inter-Service negotiations to improve materiel availability or materiel response time. On the other hand, the supply policy office can exert direct influence over the Coast Guard ICPs to effect changes in both materiel availability and materiel response time. Because of the differences in the degree of influence, it is important to consider the source and extent of supply support when developing policy and making resource decisions.

The Incompatibility of Automated ICP Systems

Coast Guard ICPs have different Automatic Data Processing Equipment (ADPE) and software capabilities since heretofore, common performance measurements have not been required from these systems. Although the

¹The requisition volume percentages are based on 660,700 Coast Guard requisitions recorded in the DAAS files during 1986. The actual percentages by Service or Agency are: Defense Logistics Agency (51 percent), General Services Administration (36 percent), Coast Guard ICPs (8.5 percent), Navy ICPs (2.1 percent), Army ICPs (1.3 percent), and Air Force ICPs (1.1 percent). Requisitions for forms, publications, and maps are excluded from the requisition count used to compute the percentages. Additionally, unit requisitions filled immediately by their supporting Navy Supply Center do not enter DAAS.

information used for the current reporting requirements is extracted from the existing automated systems, the data are not produced from a uniform set of rules nor produced specifically to measure performance.

The Lack of Coast Guard Management Information Systems

The Coast Guard currently has fielded several information systems, such as the SCAMP, Unit Finance System (UFS), District Interim Accounting System (DIAS), and Automatic Requisition Management System (ARMS). that, with additional programming, can be used to provide information for the management oversight and review of the supply system. These systems are not vertically integrated in that they do not provide information from one level to the other nor do they communicate between users. No single system extends to all Coast Guard units.

MATERIEL AVAILABILITY

Materiel availability is a measurement of the supply system's ability to satisfy customer's demands. It can be expressed as a ratio of the number of requisitions that are filled to the number of requisitions submitted, and is often reduced to a percentage figure. The definition of materiel availability in the Coast Guard should be:

The percent of requisitions that are immediately satisfied by supporting activities to include all levels of supply and supply sources.

Headquarters Responsibilities

The materiel availability goals and the funding of those goals are an HQ policy responsibility. The specific role of ELM is to establish availability goals, identify in the program and budget process funding requirements to meet those goals, and perform supply-related financial management to evaluate results. Appendix A to this Part outlines the financial data reporting necessary to develop those requirements. The goals and requirements should be adjusted as the measurements and management practices become more sophisticated.

ELM must overcome several problems to fulfill this role:

- It has a small staff with little supply experience.
- It has little information to use as a basis for establishing availability goals.

- Financial management information is not routinely produced.
- Object Class 26 and 31 financial performance is decentralized to various support and program managers.

We believe that a methodical approach can overcome these problems.

Measuring Materiel Availability

Materiel availability can be measured at both ends of the supply system. It can be measured from the supply source as either:

- *Gross Materiel Availability*, which considers all requisitions submitted to the supply source. This measurement indicates whether the supply source is stocking what the customer is ordering.

$$\frac{\text{number of issues}}{\text{number of total requisitions}} \times 100 = \text{Gross Materiel Availability (\%)} \quad [\text{Eq. III-1}]$$

- *Net Materiel Availability*, which considers only those requisitions for items that are stocked at the source of supply. This measurement indicates whether the source of supply is stocking the proper quantities of the items they are managing.

$$\frac{\text{number of issues}}{\text{number of requisitions for stocked items}} \times 100 = \text{Net Materiel Availability (\%)} \quad [\text{Eq. III-2}]$$

Two additional measures of materiel availability at the operating unit are the percent of allowance fill and the number of local purchases at the unit level.

Measuring Materiel Availability at Coast Guard ICPs

Preferably, materiel availability should be measured as gross materiel availability at the ICP. That measure, however, is not within the current capabilities of the ICPs because the data required to make this assessment are lost during the initial processing of the requisition. Gross availability should be pursued as a future requirement. Currently, the ICPs are capable of calculating net materiel availability and are doing so and reporting it in Supplement I to General Services Administration (GSA) Supply Activity Report (GSA Form 1473). It is important that this indicator be uniformly calculated as shown in Equation III-2.

Besides the uniform calculation of materiel availability, the measurement of partially filled requisitions is an issue. Partially filled requisitions can be counted

either as filled or unfilled requisitions provided they are consistently counted the same way. As an initial policy, we suggest partially filled requisitions be counted as filled; that procedure fits current Coast Guard ICP systems. A more accurate way of accounting for partially filled requisitions in a materiel availability calculation is to count only that portion of the partially filled requisition that contributes to materiel availability. For example, if a requisition for a quantity of nine of an item is partially filled with seven items, that requisition is counted as only 7/9 or 77 percent of a filled requisition. That sort of accounting requires system changes at the ICPs and should be pursued as a future refinement.

Measuring Materiel Availability at OGA ICPs

Current materiel availability measurements at OGA ICPs are of limited value to the Coast Guard since those ICPs measure materiel availability using requisitions from all customers. The Military Standard Supply and Transportation Evaluation Procedures (MILSTEP) (DoD 4000.23-M) supply availability reports also break out supply availability percentages by Military Service to indicate the effectiveness provided by each Service. The Coast Guard could use such reports to infer the level of support that it can expect from the respective Military Services. Although it is difficult to relate those aggregate numbers precisely to support provided to the Coast Guard, a broad inference can be drawn. For example, if a Military Service reports a supply availability rate of 85 percent, we can infer that for every 100 requisitions sent to that Service, 85 will be filled. A Coast Guard-specific materiel availability report could be requested from the individual Services or the Defense Logistics Support Office (DLSO), which is responsible for the MILSTEP report. While it is technically possible to provide such a report, the willingness of the Services or DLSO to provide such data is unknown. A better measure of OGA support is one taken at the unit level that the supply policy office then uses to compare with the MILSTEP supply availability rates.

Measuring Materiel Availability at Coast Guard Units

In the near term, the percentages of allowances filled can be used as the measure of unit-level materiel availability; in the longer term, that measure can be expanded to gross and net availability. The latter measures require that a manual or automated counting procedure be established at the unit's supply department. Using those latter indicators at the unit level can provide management information

to the Supply Officer and provide ELM with a more exact picture of how well units are being supported by both the Coast Guard ICPs and the OGAs. This is the "bottom line" of measuring supply effectiveness since it actually measures how well the unit is being supported from all sources of supply. In addition to the performance measurements, the quality of support² at the unit level shapes the user's perception of the system's effectiveness. The allowance-related indicators are as follows:

- **Percent Allowances Fill.** The percent allowances fill (allowances include all SCAMP items and stocked local purchase items) should be measured on a recurring periodic schedule by all SCAMP users and additionally by shipboard users prior to deployment. Measuring the fill of allowances monthly, bimonthly, or quarterly provides a continuing "snapshot" of supply availability from an operational perspective. Shipboard allowances fill percentage should be at their highest prior to deployment, and the measurement is an indicator of supply "readiness." Although not all units have SCAMP at this time, sufficient units use it to provide a statistically significant sample.

The percent allowances fill is the number of allowances lines with a quantity on hand divided by the total number of allowance lines. Multiplying the result by 100 provides the percent allowances fill. This percentage is more easily derived from information on the SCAMP Reorder Status Report. It is simply computed by subtracting the percent of allowances at zero balance from 100. The percent of allowances at zero balance and the percent of allowances below the low limit are two allowance-fill indicators that can currently be measured in the SCAMP system using the Reorder Status Report.

- **The Percent of Allowances at Zero Balance.** This percentage is computed by counting the number of allowances lines with zero on-hand balances [also known as stock-outs, zero balances or not in stock lines], dividing by the total number of allowances lines, and multiplying the result by 100.
- **The Percent of Allowances Below the Low Limit.** This percentage is computed by counting all allowances lines that have on-hand levels less than the low limit (also known as the reorder point), dividing by the total number of allowances lines, and multiplying the result by 100.

The latter two allowances-related indicators give an additional dimension to the allowances fill percentage. The percentage of allowances at zero balance reflects

²The quality of supply support is a subjective value related to customer service and responsiveness. Response-oriented supply planning considers the factors influencing the value, e.g., the accessibility of the supply system, the consistency of materiel availability, and the reliability of delivery times.

the range of allowances items that are presently unfilled, i.e., the unit's shortfall in supply readiness. The percentage of allowances below the low limit reflects the unit's depth of stock, i.e., its sustaining capability. If either of those indicators are used exclusively, the picture of the unit's allowances posture is not accurate. For example, if the unit reports 10 percent zero balances, that indicator alone does not disclose the level of stockage of the remaining 90 percent. If, on the other hand, only the percentage below the low limit were reported, the allowances-fill picture would still not be accurately portrayed. For example, if a unit only reported that 50 percent of the allowances were below the low limit, no special importance would be placed on those items that were at zero balance. Using both of these indicators provides the allowances fill picture that the Supply Officer and supply policy office need for evaluating this measure of materiel availability.

Measuring Gross and Net Availability at Coast Guard Units

Collecting availability data at the unit level is a manual operation since requests for repair parts and supplies can be either written or oral; at higher levels of supply, machine-processable requisitions are entered into an automated inventory system. That ordering process makes it difficult to collect request data at the unit level. A practical approach to measuring gross and net materiel availability at the unit level is to capture and analyze the transactions data that result from the requests for repair parts and supplies. An alternative is to manually record and track the requests that are submitted to the supply department.

Measuring availability at the unit level is based on the following standard practices:

- All requisitions and purchase requests are submitted through the unit's central supply department.
- When the user requests a part or supplies, one of the following occurs:
 - ▶ An issue is made to the user.
 - ▶ If the item is stocked and at zero balance, a due-out is established to the user.
 - ▶ If the item is not stocked, a due-in and a due-out are established to the user.
- There are two different types of due-ins:

- ▶ Those to replenish items currently stocked at the unit's central supply department. Those transactions are generally called "due-ins for stock."
- ▶ Those to satisfy the user's need for an item that the supply department does not stock. To fill the request, a due-out is established and when the item is received, it is immediately issued to the user. Those transactions are generally called "due-ins not for stock."

Gross Availability at the User Level. Gross availability at the user level is defined as the number of requests filled from stock divided by the total number of requests received. Rather than manually counting the number of written and oral requests received, the total number is derived by summing the various transactions that result from the processing of the requests. Gross availability is measured as:

$$\frac{\text{number of issues}}{\text{issues} + \text{passed requisitions} + \text{local purchases not carried}} \times 100 = \text{Gross Availability (\%)} \quad [\text{Eq III-3}]$$

In the above case, the number of issues is the number of user requests that are satisfied from stock. The total number of requests is represented by the number of issues plus the number of passed requisitions (the number of requisitions for standard items that are not carried in stock at the unit's central supply department) plus the number of local purchases of items not carried (local purchase of items that are not carried at the unit's central supply department).

To arrive at gross availability in SCAMP, the system should be programmed to count the different types of transactions over an established period of time. It should be programmed to count the number of issues from stock, passed requisitions, and local purchase of stocks not carried in the supply department. The different types of requisitions can be captured in several ways. One way is to use unique document numbers and purchase-request numbers to distinguish between replenishment requisitions and purchases, and between requisitions and local purchases for items not stocked at the unit. SCAMP can sort by document number and purchase-request number series and compute the number of requisitions that are passed to the next level of supply or locally purchased because the items are not stocked at the unit.

Net Availability at the User Level. Net availability at the user level is defined as the number of requests filled from stock divided by the total number of requests for stocked items. As with measuring gross availability, the total number of requests for stocked items is derived by summing the various transactions resulting

from the processing of the requests. Net availability is measured as:

$$\frac{\text{number of issues}}{\text{issues} + \text{due-outs}} \times 100 = \text{Net Availability (\%)} \quad [\text{Eq. III-4}]$$

In the above case, number of issues represents the number of requests satisfied from stock. The total number of requests for stocked items is the number of issues plus the due-outs (the number of requests for items carried in stock that could not be filled by the central supply department and were placed on due-out to the requesting department).

To arrive at net availability, SCAMP should be programmed to count the different types of transactions over an established period of time. It should count the number of issues from stock to fill user's requests. To arrive at the number of due-outs used in the computation, SCAMP should be programmed to count the number of due-outs established by coding them as "due-ins not for stock" and as due-outs to their respective department. Replenishment requisitions should be coded as "due-ins for stock."

Local Purchases. The number and dollar value of local purchases at the unit level are indicators of several conditions that prompt analysis by the supply policy office and the unit supply officer. An 80-percent (by dollar value) level can indicate that the Federal Supply System is not providing the parts and supplies required by the users, or that the central supply department lacks the catalog reference information to locate the items. Under a supply policy of liberal use of local sources for supply and repair parts support, an 80-percent (by dollar value) level is an indicator of full compliance with policy. An increasing trend line for either number or dollar value of local purchases can be an indicator of ICP stockage or procurement backlog problems. For the unit supply officer, an increasing number of local purchases can indicate that he/she is not stocking the appropriate mix of inventory. Because local purchase information conveys a wide range of indicators, SCAMP should be programmed to count the number of local purchases by purchase-request number series and sum the dollar values of the purchases by standard budget category. The dollar value data can also be used as a feeder report to the financial management information requirements for Appendix A.

Conclusion

Measuring availability at the ICP or at the unit only may appear to provide a suitably definitive measurement of materiel availability, but either measurement by itself is insensitive to the other level of supply support. For example, if the Coast Guard uses the ICPs materiel availability as the only measurement and that availability is 85 percent, it is not apparent to the supply policy office whether this seemingly high support level is actually providing the materiel the unit needs. Conversely, a materiel availability level of 60 percent at the unit level does not clearly portray where supply support shortfalls are occurring. To adequately measure materiel availability in the Coast Guard, it must be measured at both the ICP and unit levels.

MATERIEL RESPONSE TIME

Materiel response time is a measure of the system's ability to consistently provide the required materiel to the user in a timely manner. The definition of materiel response time in the Coast Guard should be:

The time that is required for a customer to receive requisitioned materiel from supporting activities to include all levels of supply and supply sources.

Materiel response times are the second half of the supply effectiveness equation. Regardless of high availability rates, if the supply system is not responsive, the number of zero balances increases, the supply system becomes viewed as inconsistent by the customer, and poor inventory management practices such as hoarding and locally purchasing ICP- or OGA-stocked items becomes the prevalent means of overcoming the supply system's lack of response.

Several segments of materiel response time can be measured:

- The time from the assignment of the Julian date to the entry of the requisition into the wholesale supply system
- The processing time at the ICP
- Back-order waiting time (if any)
- The time required to pick and pack the materiel at the depot or supply center

- The time elapsing from shipment of the materiel from the depot or supply center to receipt of the materiel at the unit
- The time required for the unit to process the receipt.

Each segment is subject to examination at the activity at which it occurs. However, the Coast Guard should initially be concerned with the total response time, i.e., the sum of all of the segments representing the time elapsed from Julian date of the requisition to the date the receipt is processed by the unit.

Headquarters Responsibilities

Establishing materiel response times is an HQ policy responsibility. Materiel response time standards are directly related to the HQ policy on required materiel availability at the unit level.

In Part II of this Supplement, we recommend the Coast Guard adopt a response-oriented logistics planning objective. Additionally, we identify and recommend the implementation of several changes to improve the supply system's response time. In a supply system focused on responsiveness, establishing materiel response time standards and measuring actual performance against those standards provides the basis for key decisions on supply-related resources. Response times are important to a variety of supply policy decisions such as:

- The amount of inventory to be held at the unit level
- The need for intermediate levels of supply
- The investment at the different levels of supply
- The location of storage sites
- The condition for using priority modes of transportation.

Currently, the Coast Guard does not capture response times nor does it have response time goals to imply what the materiel response times should be from the ICPs to the unit level. In the short-term, the primary effort should be to collect response time data from the unit level to evaluate current supply support and to establish a baseline against which to compare future results. Establishing Coast Guard-unique response time standards are of secondary importance in the short term.

As an interim, we suggest the Coast Guard apply the Uniform Material Movement and Issue Priority System (UMMIPS) (DoD Directive 4410.6) time frames to evaluate the response time for repair parts and supplies received at the units from Coast Guard and OGA ICPs. UMMIPS establishes the time standards for the supply of materiel measured from the origination date of the requisition to the date the receipt is posted to the unit's inventory record. Those standards are generally accepted within DoD as the target time frames in each of the materiel response time segments for stocked item requisitions that are filled immediately. The UMMIPS time frames are appropriate since a large portion of the current Coast Guard requisitions are ordered from DoD, the segments measured are similar to those of the Coast Guard ICPs, and total response time is of most importance to the unit. As Coast Guard response time requirements become more defined, the use of UMMIPS time frames can be reevaluated and unique Coast Guard response time standards introduced where necessary.

Measuring Materiel Response Time

DoD has made significant investments to measure and define response time goals. Generally, materiel response time is measured from the ICP. Each time segment is defined, measured, and in most cases electronically reported. The Coast Guard, on the other hand, not having the benefit of institutionalized materiel response time measurements and having a large portion of their requisitions filled by OGA sources, will initially have to take a different approach and largely measure materiel response time from the unit level. The Coast Guard should examine response times from two perspectives. First, the response times from Coast Guard ICPs, which are response times that can be directly influenced; and, second, aggregate OGA response times that cannot be directly influenced. In either case, response times provide management information to adjust unit-level inventories or establish intermediate levels of supply if the current two-tier supply system cannot be made responsive.

Measuring Response Times at Coast Guard ICPs

Neither the Ships Inventory Control Point (SICP) or the Electronics/General Inventory Control Point (E/GICP) have automated means for capturing response times. However, one segment that is currently being captured and reported in the Supplement to the GSA Supply Report is the age of back orders or back-order

waiting time. That information is a snapshot of the age of back orders by Issue Priority Group (IPG). The age of the back-ordered requisitions is broken out by back orders on hand 0–30 days, 31–60 days, and over 60 days. This indicator can provide the visibility necessary to manage this segment of response time. The indicator is more realistic and beneficial for evaluating ICP back orders if the following changes are made in the Supplement to the GSA Supply Report:

- Extend the age table increments to 360 days (60–90 days, 91–180 days, 181–360 days, over 360 days).
- Compute and report the average of the back-order time by IPG over the reporting period.

Measuring Materiel Response Times at OGA ICPs

The MILSTEP Pipeline Performance Report reflects materiel response time by Service and the Defense Logistics Agency (DLA) and by IPG, and is measured against UMMIPS time frames. Like the Supply Availability Report, it contains very limited information that can be directly correlated with how the Coast Guard is supported. What can be inferred from that report is that for any given Coast Guard requisition in a priority group, the Coast Guard should receive the level of support indicated by the report. For example, if another Service reports that 60 percent of the IPG 3 requisitions processed were within the UMMIPS standards, the Coast Guard should expect that its units would receive 60 percent of their IPG 3 requisitions that were sent to that Service within the UMMIPS time standards.

Measuring Materiel Response Times at the Unit Level

Materiel response time in the Coast Guard, given the current environment, should be captured as a single time segment at the unit level. Currently, the Coast Guard has no method to capture this data at the unit level; therefore, one of the current unit-level information management systems should be programmed to measure materiel response times. The SCAMP system is the best choice for the initial capturing of response times because it is currently used to manage a high volume of lines and requisitions. It is also in use at a cross section of Coast Guard units, including major cutters and shore installations.

In the SCAMP system, requisitions are established in the data base as they are sent to the source of supply and are closed when the materiel is received. A programming change requirement is to calculate the average number of days

between the establishment of the requisition in SCAMP and the date the requisition is closed out by IPG. Partial quantity receipts of 50 percent or more of the quantity ordered should be counted as filled. This response time information can be used to:

- Provide the order and shipping time (OST) part of the requirements computation where demand-based stock level capability is added to the unit-level system
- Consider OST in the maintenance plans
- Set standards for requisition status follow-up times.

SCAMP should report a single value for the average number of materiel response days per unit by specific Coast Guard ICPs and the specific Federal or Military Service. That information should be forwarded to ELM. An enhancement to this process would be to calculate materiel response times by specific Service's ICP, which could be done by sorting by the routing identifier code (RIC) that indicates the source of supply.

Analyzing Data

For the indicators of supply effectiveness — materiel availability and materiel response time — to be meaningful, trends, not absolute numbers, should be examined. Absolute numbers are useful to the extent that they represent a point in time, whereas trends indicate variance from a standard or average. The trends should display and examine both historical data, e.g., the average over a 3-year period and the four most recent quarters of current data.

Trend analysis must consider the variability of information. Variability is how stable the values of the indicators are from reporting period to reporting period. The importance of the indicators are their trend over time and not so much their absolute value. For example, if an ICP reports a 91-percent materiel availability, the analysis should be directed toward how often the 91-percent availability is attained during the current and historical period or what the mean materiel availability is for the same period, and what the deviations are around the mean. In other words, the analyst should determine the dependability of the values over a given period of time. This concept is especially important when considering supply effectiveness measurements to determine whether policy changes are achieving the desired goals.

Developing Future Data Reporting Requirements

As supply effectiveness and other performance measurements are monitored, additional reporting requirements will be identified. To properly develop these requirements, joint efforts between the ICPs and HQ supply policy office will be necessary to ensure that the ICPs are able to provide the information from their current data systems.

The Coast Guard's standard terminal system is an existing capability that can be used to simplify the data handling, input, and performance measurement calculations. Data can be channeled into preprogrammed software that automatically produces management reports.

Systems design and resystemization efforts should incorporate oversight and review measurements and should include the automated reporting and analysis of these measurements.

CONCLUSION

Supply availability and response time are the two basic measures of supply effectiveness. The supply policy office's ability to gauge supply effectiveness is key to making policy, program, and system resource decisions that improve supply responsiveness to the operating units needs and to the readiness and sustainability of the units to execute their portion of the Coast Guard's mission.

SUMMARY OF RECOMMENDATIONS

Policy Recommendations

Materiel Availability

- Establish materiel availability goals at the ICP using an average of past net availability as reported in the Supplement to the GSA Supply Activity Report.
- Develop funding requirements to meet materiel availability goals using information that is outlined in Appendix A to this Part of the Supplement.
- Measure materiel availability at the unit level using:
 - ▶ Percent allowances fill
 - ▶ Gross and net materiel availability

- ▶ The number of local purchases transactions and their total dollar value.

Materiel Response Time

- Establish materiel response time goals using the UMMIPS time frames as an initial standard.
- Measure materiel response time at the unit level by Coast Guard ICP and OGA.
- Review back orders at the ICPs as a means for reducing materiel response time.

Automated System Requirements

ICP-Specific Requirements

- Develop a requirement to capture gross materiel availability.
- Develop a requirement to capture partial fill rates.
- Develop a requirement to provide an expanded table for aging back orders and a capability to compute back-order time averages by IPG for each reporting period.

SCAMP Requirements

- Develop a requirement to capture allowance fill rates.
- Develop a requirement to capture local purchase information at the unit level.
- Develop a requirement to capture gross and net materiel availability rates at the unit level.
- Develop a requirement to capture material response time at the unit level.

PART III
APPENDIX A
FINANCIAL DATA FOR OVERSIGHT AND REVIEW

At the Coast Guard's supply policy office, the importance of using financial information for oversight and review purposes cannot be underestimated. Supply support is a direct result of financial resources, and dollars are the single common denominator from which all supply operations can be measured. Financial data are significant quantitative performance indicators. Financial data can be used to measure both effectiveness and efficiency and can be concise indicators of policy performance. Such data are a valuable planning and budgeting tool that can be used to prioritize requirements and set goals for the Coast Guard's supply operations.

The size of the supply equipment budget in the Coast Guard is impressive. In the FY86 budget to the President, the Supplies and Materiel line (Object Class 26) was estimated at \$302 million and the Equipment line (Object Class 31) was estimated at \$72 million. These two lines combined represented approximately 21 percent of the total \$1.7 billion Coast Guard operating budget. Only the \$725 million for Military Personnel (Object Class 11.7) is a larger percentage of the total operating budget.

Current processes for budget formulation, Operating Expenses (OE) fund distribution, and expenditure reporting make it difficult for upper-level managers and policymakers to know the cost of supply support in the Coast Guard. The Coast Guard uses financial data for many administrative purposes but not for oversight and review of the supply system. Information on expenditures in Object Classes 26 and 31 provides insight on management and policy affecting supply operations. These financial data are presently resident in the Coast Guard's financial systems, but because no requirement exists, the data are not visible and are difficult to access.

Another difficulty arises in comparing and integrating cost information. The current arrangement of object classes is cumbersome. Some object classes account for a single item while others are a conglomerate of several items. For example, Object Class 2638 represents expenditures for eyeglasses. Object Class 2641

represents expenditures for aviation materiel to include lubricants, flight clothing, and packing materiel. There is no single object class for fuel. The existing object class codes provide poor resolution of expenditures. Establishing a new object class structure (summarized by program or purpose) is a lengthy process and one that should be undertaken. In the meantime, a recurring report of expenditures by Object Classes 26 and 31 should be instituted. A standard data reporting requirement should be placed on the Accounting Division to gain access to these data and ensure their continued availability. The Logistics Management Division (G-ELM) should pursue the development of three financial supply reports at this time:

- Supply Expense Report (Enclosure 1)
- Supply Fund Report (Enclosure 2)
- Budget Performance Report (Enclosure 3).

The use of financial data as a review and oversight tool provides a concise look at the Coast Guard's supply operations. These tools will allow G-ELM to adjust those supply policies that influence the spending of supply dollars and improve the Coast Guard supply system performance.

ENCLOSURE 1

QUARTERLY AREA SUPPLY EXPENSE REPORT

This report reflects a quarterly roll up of the Area's Object Class 26 and 31 expenditures. Its purpose is to keep the Logistics Management Division (G-ELM) abreast of the dollars expended on supply. This report indicates: (1) what money was spent by object class and Operating Guide (OG); (2) who spent it by administrative unit code; (3) where or how it was spent by vendor; and (4) the total dollars by vendor category, i.e., local purchase, Coast Guard Inventory Control Point (ICP), Other Government Agency (OGA).

Within Object Class 26 and 31,

$$\left. \begin{array}{l} \text{OGA expenditures} \\ + \text{local purchase expenditures} \\ + \text{CG ICP expenditures} \end{array} \right\} \text{ equals Total Supply Expenditures}$$

The report should display by Area the four-digit object class arrayed within OGs and consolidated into major operating groups. The major operating groups are defined as:

Aircraft	Cutters	Boats	Shore Units	Medical	Electronics
2601	3154	3164	2644	3157	3142
2612	2634	2645	2663	2638	2642
2641	2654		2664	2639	2691
2658	2665		2667	2646	2692
2662	2669		2668	2647	
	2693			2657	
A to N	General				
2675	3155	2615			
2676	3156	2621			
	3163	2651			
	3171	2655			
	3172	2656			
	3173	2660			
	3181	2677			

The major groups are then arrayed within the following three vendor categories:

- OGA
- Local purchases
- Coast Guard ICPs.

Each Service within OGA and each Coast Guard ICP should be reported as a separate vendor category. A single-line vendor category for local purchases is sufficient.

The Accounting Division has a report titled *Consolidated Analysis of Expenditures by Object Classification* (RCNK1AK4270.R1) similar to the proposed Quarterly Area Expense Report. It should be reformatted and expanded to meet supply management requirements for oversight and review.

Summary data should be displayed in the format shown on the following page.

AREA SUPPLY EXPENSE REPORT

DATE: _____

ADMINISTRATIVE UNIT

Expense by Object Class		Expense by Major Operating Group		Expense by Vendor Category	
		Object Class 26		Other Government Agencies	
Object Class 26	_____	Aircraft	_____	Army	_____
Object Class 31	_____	Cutters	_____	Navy	_____
Total	_____	Boats	_____	Air Force	_____
		Shore Units	_____	DLA	_____
Expense by Operating Guide		Medical	_____	GSA	_____
Operating Guide 30	_____	Electronics	_____	Other	_____
Operating Guide 41	_____	A to N	_____	Total	_____
Operating Guide 42	_____	General	_____		
Operating Guide 43	_____	Total	_____		
Operating Guide 45	_____				
		Expense by Major Operating Group			
		Object Class 31		Coast Guard /ICP	
		Aircraft	_____	E GICP	_____
		Cutters	_____	SICP	_____
		Boats	_____	AICP	_____
		Shore Units	_____	Total	_____
		Medical	_____		
		Electronics	_____	Local Purchase	_____
		A to N	_____	Vendor Category	
		General	_____	Total	_____
		Total	_____		

ENCLOSURE 2
QUARTERLY SUPPLY FUND REPORT

This report reflects a quarterly roll up of each Area's supply fund (SF) categories 83 and 85. As in the above report, the purpose of this report is to keep the Logistics Management Division (G-ELM) informed of the SF expenditures.

Within the SF,

$$\left. \begin{array}{l} \text{OGA expenditures} \\ + \text{ local purchase expenditures} \\ + \text{ CG ICP expenditures} \end{array} \right\} \text{ equals Total Supply Expenditures}$$

The report should display by Area and Coast Guard Inventory Control Point (ICP) the SF category expenditures arrayed by the following three vendor categories:

- Other Government Agency (OGA)
- Local purchases
- Coast Guard ICPs.

The report should display each Service and Agency, and each Coast Guard ICP as a separate vendor category.

Summary data should be displayed in the format shown on the following page.

SUPPLY FUND REPORT

DATE: _____

ADMINISTRATIVE UNIT

Expense by Supply Fund Category

Supply Fund Category 83 _____
Supply Fund Category 85 _____

Expense by Vendor Category

Other Government Agencies

Army _____
Navy _____
Air Force _____
DLA _____
GSA _____
Other _____
Total _____

Coast Guard ICP

E-GICP _____
SICP _____
AICP _____
Total _____

Local Purchase _____

Vendor Category
Total _____

ENCLOSURE 3
BUDGET PERFORMANCE REPORT

This report reflects the Coast Guard Area and Inventory Control Point (ICP) supply budget performance with respect to the budget request, the budget authorization, and the dollar value of expenditures. It has two purposes: first, to keep the Logistics Management Division (G-ELM) abreast of the dollars expended on supply in relation to the dollars authorized; and, second, to provide G-ELM with visibility into budget shortfalls. This report indicates by administrative unit code: (1) the dollar value requested by object class, (2) the dollar value authorized by object class, and (3) a quarterly and cumulative total of the amount expended by object class.

Summary data should be displayed in the format on the following page.

BUDGET PERFORMANCE REPORT

DATE: _____

Administrative Unit: Object Class	Requested	Authorized	Percent Difference	Quarterly Expenditure	Year-to-Date Expenditure	Percent Balance
26						
31	_____	_____	_____	_____	_____	_____
Totals						

PART IV

OBJECTIVES AND POLICIES: MANAGING SUPPLY PERSONNEL

There will be a continuing need to focus on the career development of personnel. Innovative approaches to rating management, training, and sea/shore rotational assignments will be necessary to assure professional development.

Training is a critical ingredient in achieving and maintaining a high state of readiness.¹

INTRODUCTION

The Coast Guard knows where it is and where it would like to be; the challenge is how to get there. That the first step has been taken is demonstrated by the above statements. They put into perspective the acceptance by the Coast Guard's highest leadership of the criticality of the manpower and training functions and their relation to the support of Coast Guard readiness. Without sufficient manpower trained to the highest level of efficiency, no readiness dividends can be realized. The Commandant's direction is clear: fully utilize current manpower resources through new and creative training programs, professional development, and career progression to ensure the Coast Guard's operational success now and in the future. Accomplishment of this task as it applies to the supply support structure requires an increased emphasis on the manpower and training functions. The Coast Guard's leadership has made a commitment to these functions to ensure the professional development of Coast Guard personnel. That commitment needs to encompass manpower for the supply support system.

WHERE THE COAST GUARD STANDS

During our analysis for improving shipboard supply management, we uncovered a number of weaknesses in manpower and training programs for the active duty supply management personnel. Those weaknesses were stated in our October 1987 report, *Improving Shipboard Supply Management in the Coast Guard*.

¹Commandant's Long Range View. COMDTINST M16014.1C. 24 Sep 1986.

The remaining areas to consider are civilian personnel and the reserve forces. The civilian work force is critical to the operational readiness of the Coast Guard because it provides stability and often the corporate knowledge of any command. Its training and professional development should not be ignored.

In the case of mobilization, the reserve force will become a vital ingredient of the Coast Guard's defense posture. Reservists must be adequately prepared to assume the tasks of active duty personnel and, when mobilized, to make an immediate positive impact on readiness. It is important that the reservists' training closely mirror their active duty counterparts to reduce the learning curve and increase their productivity. Viable and ongoing professional development programs for both civilian and reserve personnel are part of the total supply support structure.

WHERE THE COAST GUARD WANTS TO BE

To meet the future needs of the Coast Guard, plans for professional development of supply managers should begin now. The goal is to have a supply system that functions efficiently but, more important, one that provides timely support to all operational vessels and units. The manpower and training functions are key ingredients in the achievement of this goal.

Supply management personnel include civilian supply specialists, enlisted storekeepers (SKs), fiscal and supply (F&S) warrant officers, and commissioned officers. Each is an important player in the system, and each provides invaluable expertise at all levels. They work as a team and should be viewed as a totality, not as separate entities.

As centralized supply principles are instituted Coast Guard-wide, the responsibilities of the supply managers should evolve with them. At the enlisted level, SKs will have the greatest responsibility for supply support and will divest themselves of all functions not related to the supply management function.

The expertise and leadership of the F&S warrant officers will continue to be fully utilized. They have been the managerial talent that filled a vital role as the first-line officer-level supply management experts. Improvements in their selection and training will further increase their contribution.

A gap exists in the mid- and senior-level officers with supply management expertise to fill the policy and planning positions throughout the logistics structure

[i.e., HQ, Maintenance and Logistics Commands (MLCs), ICPs, and Support Centers]. The F&S warrants will not fill this gap because they are not utilized in upper-level policy and planning formulation.

The development of Coast Guard officers with supply management expertise begins with the junior officers at the shipboard level and continues with progressive tours through the support structure. These assignments are alternated with the officer's primary specialty. The Coast Guard has no need for a "Supply Corps." A select cadre of officers who have been exposed to all the functions and levels of supply management is needed to evolve new policy. A properly designed career pattern will develop these officers.

It is important at this point to distinguish between a "career path" and a "career pattern." A career path denotes that the officer would specialize in supply and serve most of his career in that capacity. A career pattern means that the officer alternates between tours that involve his primary specialty, such as engineering, comptrollership, electronics, or operations, and tours that expose him to supply management positions throughout the supply support structure. We favor the career pattern for several reasons: first, it allows the officer to remain a line officer and remain competitive; second, it produces better supply managers because of exposure to maintenance and operations; third, a separate Coast Guard "Supply Corps" would not be created.

The civilian work force's professional development and training will continue to be emphasized to provide corporate knowledge and continuity and to maximize its vital contribution to supply support.

In the event of mobilization, reserve supply management personnel will be capable of assuming key positions and making a significant contribution to readiness.

HOW TO GET THERE

The following quote was extracted from a marker outside the MLC Pacific offices on Coast Guard Island. In simple terms it pinpoints the challenge facing the Coast Guard in the management of manpower and training for its supply function.

The marker reads as follows:

Those who would aspire to "Semper Paratus" and all which that encompasses, must first be ready to learn.

To achieve the Commandant's objectives requires a plan that spells out the intermediate policies and long-term objectives concerning the development of supply management personnel and their future impact on the supply support structure.

There are two primary planning objectives for management of the manpower responsible for the supply support system:

- *Objective I:* To significantly contribute to Coast Guard operational readiness by providing trained and qualified supply management personnel to manage the supply support function of the logistics process
- *Objective II:* To ensure the productivity of the manpower sustaining system through the practical and realistic utilization of current manpower resources and their training, professional development, and career progression.

We recommend the Coast Guard adopt the objectives and incorporate them into the next revision of the *Commandant's Long Range View* to ensure that future manpower and training plans and programs support supply management personnel requirements.

Policy guidance provides the building blocks for the achievement of those objectives. The remainder of Part IV discusses the policy guidance that provides the courses of action leading to the achievement of the objectives. The policy guidance concerning civilian and reserve personnel is generic and brief since our study primarily concentrates on military personnel involved with supply support. However, they are addressed because of their current role and contributions to the overall structure.

Objective I and Related Policy Guidance

Objective I – To significantly contribute to Coast Guard operational readiness by providing trained and qualified supply management personnel to manage the supply support function of the logistics process.

- *Policy Guidance* – Establish an HQ position with responsibility for centralized management of all supply management personnel (i.e., officers, F&S warrants, SKs, civilians, and reserve personnel).

This position does not replace the overall personnel management responsibilities that are performed by the Office of Personnel (G-P). Its purpose is to give visibility to those personnel as a supply management team and to assess their impact on the overall support structure. The position can be in the form of one individual or be assigned as a collateral assignment or staff function. It should monitor each group of supply management personnel and provide policy and/or recommendations on their training, professional development, and career progression to the appropriate manager in G-P. Currently, the Coast Guard has no means for judging how changes affecting any of the supply management personnel can affect the support structure as a whole. The oversight responsibility inherent in this position should provide such a capability. The position should be proactive rather than reactive in order to prevent problems before they occur. This position can lead the development of an officer's "career pattern" in supply management. The most important contribution of this position is that it provides aggregate visibility of the personnel management and training processes that have a significant impact on supply support.

- *Policy Guidance* – Develop an overall master plan for the management of supply personnel.

The position providing centralized management of supply personnel should have the responsibility for drafting a master plan that deals with the short-term and intermediate-term goals for achieving the long-term objectives. The master plan should address the resources, training, professional development, and career progression needed to achieve these objectives. The master plan should be used to determine a direction for the management and training of the manpower and guide future policy that may affect it.

- *Policy Guidance* – Improve the attractiveness of sea duty to the storekeepers, and make sea duty a desirable assignment.

The SK assignment officers find it difficult to get volunteers to go to sea. Sea duty is perhaps one of the most difficult challenges Coast Guard personnel can face; it stresses the individual physically, mentally, socially, and emotionally. At the

same time, sea duty requires the most talented and qualified personnel that the Coast Guard can provide in that challenging environment.

New ideas should be examined to increase the number of qualified personnel volunteering for sea assignment. An alternative is to give sea duty heavier weight in the promotion process, especially for those individuals who perform well. Another is to give sea duty a similar status to isolated duty where the individual is guaranteed a choice of duty assignment upon rotation from sea.

- *Policy Guidance* – Review the screening and selection process of F&S warrants, particularly the selection process for F&S warrants assigned to sea duty.

The criteria for selection to F&S warrant should be reviewed, and performance standards should be developed and used in the assignment selection process. Personnel selected for commissioning as F&S warrants should have a prior tour at sea, a well-rounded knowledge of the rating, and should clearly display outstanding leadership and managerial qualities. The majority of F&S warrants assigned to sea duty are newly appointed. The selection process should concentrate on the candidates with the greatest potential for success.

- *Policy Guidance* – Carefully screen officers to be assigned as supply officers on high endurance cutters and select those with the greatest potential for success and continued interest in future supply management positions.

The supply officer billet on a high-endurance cutter should not be viewed as a second-rate or collateral assignment. Individuals assigned to that position should be screened for the proper attitude and experience to be successful. Such individuals should display a genuine interest in supply management and should have the potential for assignments in the supply career pattern.

Generating interest in supply management will take time. Currently, the Coast Guard has few officers with detailed knowledge of supply management. To be more specific, the Comptroller career field has two primary occupational field codes that denote specialists in supply and inventory management (Code 33) or supply operations (Code 34). Fewer than 20 Coast Guard officers (less than 0.5 percent of Coast Guard officers corps) have been identified with those specialties. Accessions-level courses should be developed at the Coast Guard Academy and Officer's Candidate School (OCS) to expose junior officers to logistics and its functions.

- *Policy Guidance* – Integrate reserve training with active duty training.

The reserve training of supply management personnel must closely mirror the active duty training of their counterparts. Active duty for training periods could be utilized for attendance at DoD courses or assignments to positions in the Coast Guard supply support structure.

Objective II and Related Policy Guidance

Objective II – To ensure the productivity of the manpower sustaining system through the practical and realistic utilization of current manpower resources and their training, professional development, and career progression.

- *Policy Guidance* – Review and improve professional development for all supply management personnel.

Professional development should be a "philosophy" as well as a documented program. It is initiated and maintained through continuous training and augmented through experience and career progression. All supply management personnel should have a prescribed program of career development – from the new SK who aspires to be a SK Master Chief, or the Stock Control Clerk who wishes to be a Supply Management Specialist. To promote professional development, career guides should be published for each group of supply management personnel. For example, an SK's career guide would contain information on different career patterns in the rating, training opportunities available, assignment and advancement procedures, and other related topics.

The goal for the officers involved in supply management should be to design a career pattern that promotes professional development through an even mix of both specialty and supply management positions starting at the shipboard level and culminating at the HQ. The first step in creating such a career pattern is to analyze all the existing officer billets to ascertain which positions could be coded as supply management positions. Current positions at the MLCs and HQ would qualify as well as many of the positions at the ICPs. Appendix A to this Part of the Supplement provides a detailed example of an officer's career pattern.

- *Policy Guidance* – Strengthen entry-level training programs for all supply management personnel.

The purpose of this policy is to ensure that future supply managers are provided up-to-date knowledge of the supply system in their basic skills training course. It requires that the HQ oversight position evaluate changes in supply policies and procedures for their impact on the formal school curriculum and that the faculty be advised of new areas of instruction.

A particular problem with the F&S warrant program is that upon commissioning, no entry-level training is provided on the responsibilities of F&S warrant officers or the management of shipboard supply procedures. The mental and emotional transition from enlisted to officer can be a difficult experience. The awkward feelings that arise from the transition are natural and similar to the feelings the young ensign experiences when facing his/her division for the first time. The difference is that the ensign has had the benefits of leadership and management training at the Coast Guard Academy or OCS. The newly appointed F&S warrants should attend the Leadership and Management course at the Petaluma Training Center. For those F&S warrants going to sea, a supply management course should precede the tour of duty.

To meet their training needs, the junior officers who will be assigned to the high endurance cutters as supply officers should attend a 5- to 8-week supply management course. The focus of the course should be on auditing and overall management of the supply operation rather than on detailed procedures. This course should be targeted towards both the officers and the F&S warrants.

- *Policy Guidance* – Develop mid- and senior-level training for all supply management personnel.

Mid-level developmental training for any of the supply management personnel is limited. The Coast Guard primarily utilizes the front-load style of training in which the individual is taught a large part of the subject matter before reporting to an assignment and is expected to retain that information and expand it on the job. The front-load method of instruction is being transformed in the other Military Services to a progressive or continuous style of training. The progressive style format spreads training over the individual's career. As the individual's competency increases with time and experience, the training is geared towards a new level of comprehension. Progressive training allows for shorter initial training periods.

reduces costs by reducing temporary duty expenditures, requires the student to learn only what is needed to perform productively on the initial tours, and allows the students to apply their job experience in follow-on training. The classroom becomes more productive as the instructors teach to the experience level of the students. Progressive instruction provides an effective means of updating students with the latest issues or revisions in policy and procedures.

Professional development for officers and civilians should be promoted through programmed mid- and senior-level training. The officers' and civilians' formal training should not cease at the completion of their basic supply management course. The master plan should outline mid- and senior-level training opportunities to continue the professional development of officers and civilians who are following a supply management career pattern.

The civilian work force provides significant input to the Coast Guard's corporate knowledge. It represents a stability and continuity that cannot be provided if military personnel are rotated every few years. Training for civilian supply managers should fully utilize the myriad courses available through DoD. The better trained the civilian work force, the higher the productivity of the supply support. *Appendix B discusses advanced training of supply management personnel.*

WHAT TO DO NOW

In Parts II and III of this Supplement, we recommend that the Coast Guard adopt response-oriented planning and decision-making in supply management, and establish supply effectiveness measurements and reporting to gain oversight of the supply system's performance. Those are two of the three key elements needed to guide the evolution of the system so that it satisfies the needs of the Coast Guard without overextending its capabilities. Developing experienced supply managers is the other key element to complete the triad.

The Coast Guard needs to have well-trained and experienced supply managers. They provide the supply planning and system operation at every level from the HQ policy office to the ashore or afloat unit's supply department. Planning supply support, making supply policy and decisions, and carrying out supply operations requires the continuous dedication of Coast Guard officers, enlisted, and civilian personnel at widely scattered locations. They are direct participants in the spending of millions of dollars, which if spent wisely, results in supplies, repair parts, and

equipment being available to the operating units when needed. Conversely, unwise spending of those dollars creates stocks of unneeded items – representing wasted dollars – that accumulate in storage spaces until eventually sent to disposal. Because supply managers are a key personnel resource, their training and career development should be well planned.

In this Part of the Supplement we present two primary planning objectives for the management and training of supply personnel. We believe the objectives and their related policy guidance should be included in the next revision of the *Commandant's Long Range View*. Although including the objectives and policy guidance in this document is important for planning over the next 15 years, particular actions described in the policy guidance are applicable now.

We also believe the Coast Guard should act now to:

- Establish in the HQ supply policy office a position responsible for centralized management, i.e., selection, training, and career development, of supply personnel.
- Develop a master plan for the short-, intermediate-, and long-term actions to set up and sustain a supply personnel management program.

Additionally, the policy guidance related to Objective I should be applied to selecting and training the supply officer, warrant officer, and supply department crew for the high-endurance cutters returning to the Fleet from renovation and modernization. Lastly, the officer's supply management career pattern (Appendix A) should be staffed now to the HQ Support and Program Managers for comment on supply management as an adjunct to their officer career fields. The staffing should be completed in time to provide the career pattern to the Office of Personnel (G-P) for publication in the next revision of the *Officer Career Guidebook* (COMDTINST 1040.2).

CONCLUSION

During our research we found that the Coast Guard's supply management personnel understand the importance of supply support, agree that improvements are needed, and want to participate in bringing those improvements into being. However, many felt constrained and frustrated by the absence of a training plan to

expand their knowledge and a career development program to capitalize on their experience through assignments to positions of increasing responsibility.

Supply managers are an important resource. An investment in their training and career development is recovered in many ways, e.g., wiser spending of dollars for inventory, lower maintenance downtime awaiting repair parts, and fewer costly quick-fix responses to supply problems. We recommend the adoption of the planning objectives and their related policy guidance for management and training of supply personnel. With early implementation of the specific actions we identify, the Coast Guard can begin its program of developing and sustaining the experienced personnel required to plan, manage, and operate an effective supply support system today and into the future.

PART IV

APPENDIX A

SUPPLY MANAGEMENT CAREER PATTERN FOR OFFICERS (EXAMPLE)

This appendix provides a discussion and an outline of an officer's career pattern that combines a specialty field with supply management. It illustrates how specialty area operational tours and supply management tours can be alternated to provide a broad and diverse base of experience. An example career pattern outline is provided as Figure IV-A-1.

This career pattern and its benefits to the Coast Guard involve several important factors. An officer can enter it from any specialty background, i.e., operations, comptrollership, engineering, electronics, etc. The pattern begins at the shipboard level where an end-use perspective can be gained and the effects of the supply support system are the most apparent. The supply management positions increase in complexity and responsibility as the officer advances. This increase exposes the officer to the various levels in the system and the people who manage them. Since the officer rotates between specialty area and supply management positions, he remains competitive for promotion and completes required command tours at the senior-level positions.

The mix of operations in the specialty area and supply management experiences develops officers with considerable insight and knowledge that adds to their effectiveness as managers by allowing them to better understand the various areas to be resolved. This career pattern places in Headquarters-level policy and planning positions officers who understand the problems and issues and can implement solutions quickly. Those officers will have the background and experience necessary to provide proper guidance and direction to meet the Coast Guard's future supply support objectives.

Rank	Year	Rotation	Assignment
CAPT	24	Shore/Logistics	Head of ELM or Program Manager
	23		
CDR	22	Shore/Logistics or Sea/Operational	Area/staff or XO/CO
	21		
	20		
	19	Shore/Supply and Maintenance	Ch, Nav Eng Div, MLC
	18		SICP/Stock Control Staff Officer, HQ (G-E)
	17		
LCDR	16	Sea/Operational	Dept Head-WHEC
	15		XO/CO-WMEC
	14	Shore/Supply and Maintenance	Asst Ch, Nav Eng Div, MLC Contracting Officer, MLC
	13		
	12		
	11	Shore/Post Graduate Training	Master's Level Training (DoD School)
LT	10		
	9	Shore/Operational	OIC/Ship Repair Detachment XO/Group (or) EO/WMEC
	8		
	7	Sea/Supply Management	WHEC/Supply Officer
	6		
LTJG	5	Shore/Operational	HQ Staff
	4		
ENS	3	Sea/Operational	Student Engineer WHEC
	2		
	1		

FIG. IV-A-1. COAST GUARD SUPPLY MANAGER OFFICER CAREER PATTERN OUTLINE
(Naval Engineering Specialty)

PART IV

APPENDIX B

ADVANCED TRAINING OF SUPPLY MANAGEMENT PERSONNEL

Attendance at advanced training courses is an essential part of professional development for supply management personnel. Advanced training for officers, Fiscal and Supply (F&S) warrants, and senior civilians should focus on the management philosophy of logistics. Fields of study should include program management; review of the acquisition process; material systems analysis and design; the planning, programming, and budgeting system to include the role of Congress; procurement administration and contract law; headquarters staff procedures and policy formulation; advanced inventory control management and distribution; manpower staffing standards and allocation; and the DoD logistics support structure and its interface with the Coast Guard. Many of these topics are available through courses offered and taught by DoD logistics activities.

The greatest need for formal training lies with the officers. Senior-level officers will be assigned to decisionmaking positions that affect the organization and structure of the supply support system. They should have extensive knowledge of the relationship of supply to other logistics and operations activities to make informed and intelligent policy decisions. Master-level postgraduate training is available from DoD schools – the Navy Postgraduate School, Monterey, Calif.; the Army Logistics Management Center, Fort Lee, Va.; and the Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio.

The officers should be encouraged to join any of the logistics professional societies such as the Society of Logistics Engineers (SOLE), the American Production and Inventory Control Society (APICS), or the American Management Association (AMA). Those professional societies offer seminars, lectures, and courses on all the different areas of logistics. They also provide exposure to individuals involved in private-sector logistics, which can stimulate new ideas and approaches to problems.

Chapter 28 of the DoD Supply Management Reference Book¹ provides a complete overview of supply-related educational programs for officers, civilians, and enlisted supply management personnel. The information is structured to allow comparison of the other Military Services' approaches to basic and advanced education of supply personnel and the school system/educational program they use for doing so. Although the discussion is oriented to DoD, the basic requirements for training and the concepts for integrating professional development and career patterns are applicable to the Coast Guard. We suggest the chapter be used as a reference in modeling and documenting the Coast Guard's supply-related educational program.

¹*Department of Defense Supply Management Reference Book* is a Joint-Services publication, dated 1 Jan 1985, and published as Army Pamphlet No. 700-1, Navy Supply Instruction No. 4400.78C, Marine Corps No. 4400.163, Air Force Pamphlet 67-2, and Defense Logistics Agency No. 5105.1.

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

ADP	Automated Data Processing
ADPE	Automated Data Processing Equipment
AICP	Aviation Inventory Control Point
AMA	American Management Association
APICS	American Production and Inventory Control Society
ARMS	Automated Requisitioning Management System
ATON	Aids to Navigation
DAAS	Defense Automated Addressing System
DIAS	District Interim Accounting System
DLA	Defense Logistics Agency
DLSO	Defense Logistics Support Office
E/GICP	Electronics/General Inventory Control Point
ELM	Logistics Management Division, Office of Engineering
F&S	Fiscal and Supply
GSA	General Services Administration
HQ	Headquarters
ICP	Inventory Control Point
ILS	Integrated Logistics Support
IPG	Issue Priority Group
LANTAREA	Atlantic Area

MILSTEP	Military Standard Supply and Transportation Evaluation Procedures
MLC	Maintenance and Logistics Command
NSF	National Science Foundation
OCS	Officer Candidate School
OE	Operating Expense
OG	Operating Guide
OGA	Other Government Agencies
OST	Order and Ship Time
PACAREA	Pacific Area
RIC	Routing Identifier Code
SCAMP	Shipboard Computer-Aided Maintenance Program
SF	Supply Fund
SICP	Ships Inventory Control Point
SK	Storekeeper
SOLE	Society of Logistics Engineers
UFS	Unit Finance System
UMMIPS	Uniform Material Movement and Issue Priority System

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<p>This report is a Supplement to our October 1987 report <i>Improving Shipboard Supply Management in the Coast Guard</i>. In that report we presented recommendations on supply management responsibilities, operations, and organization aboard ship. We also recommended organizational and functional changes in the shoreside support structure for centralized supply management and integrated supply, maintenance, and procurement.</p> <p>In this Supplement we assess Headquarters-level objectives and policies and oversight and review measures. We present additional recommendations that address supply system management issues.</p> <p>The Supplement is presented in four Parts: Part I is an overview; Part II proposes a response-oriented planning discipline as the basis for a Coast Guard logistics objective and related policies; Part III provides basic materiel availability and materiel response time measures of supply performance to use in oversight and review of supply effectiveness; and Part IV adds objectives and policies recommendations to those we made on manpower and training in the basic report.</p> <p>For a complete and thorough understanding of this Supplement, we recommend that the reader first read the basic report.</p>			
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